



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,440	04/01/2004	John Affleck	23407	9252

4859 7590 08/09/2005

MACMILLAN SOBANSKI & TODD, LLC
ONE MARITIME PLAZA FOURTH FLOOR
720 WATER STREET
TOLEDO, OH 43604-1619

EXAMINER

JOHNSON, VICKY A

ART UNIT

PAPER NUMBER

3682

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/816,440

Applicant(s)

AFFLECK ET AL.

Examiner

Vicky A. Johnson

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 recites the limitation "said fastener means" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 5-9, 11, 12, 16-18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Felber (CH 346442) in view of Plamper (US 4,229,994).

Felber discloses a mounting hub comprising a frustum-shaped body (5) having an upper surface with a first diameter and an opposed lower surface having a second diameter larger than the first diameter (see Fig 2), the upper surface having fastening means (see Fig 2), and a mounting bore (see Fig 2) extending through the body between the upper surface and the lower surface, and the bore having an inner surface (see Fig 2).

Felber discloses a hub as described above, but Felber does not disclose the hub being made of plastic.

Plamper discloses a hub made from plastic (col. 1 lines 49-56).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the hub of Felber to be made from plastic as taught by Plamper in order to improve the strength of the hub.

Re claims 2 and 12, the fastening means is a plurality of apertures formed in the body at the upper surface (see Fig 2).

Re claims 5 and 15, the inner surface (11) has a cylindrical profile with a plurality of radially outwardly extending grooves (see Fig 2).

Re claim 6, including a recess (6) formed in the upper surface (see Fig 2).

Re claims 7 and 16, including an annular recess (10) formed in the lower surface between a central boss and an outer wall of the body (see Fig 2).

Re claim 8 and 17, a plurality of ribs dividing the recess into a plurality of segments (col. 1 lines 20-21).

Re claims 9 and 18, each segment has an associated slot formed in a bottom wall of the recess (see Fig 2).

Re claim 20, the splines are rectangular (well known).

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Felber (CH 346442) in view of Leston (GB 1236264) and Plamper (US 4,229,994).

Felber discloses a steering wheel (1) having a center disk, a fastener means, and a mounting hub connected to the center disk (3) by said fastener means (8), a frustum-

Art Unit: 3682

shaped body (5) having an upper surface with a first diameter and an opposed lower surface having a second diameter larger than the first diameter (see Fig 2), a plurality of apertures formed in the body at the upper surface (see Fig 2), a central recess (6) open to the upper surface, and a mounting bore (see Fig 2) extending through the body between the upper surface and the lower surface, and the bore having an inner surface (see Fig 2).

Felber does not disclose the mounting bore being tapered.

Leston discloses the mounting bore being tapered (see Fig 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the hub of Felber to include a taper as taught by Leston in order to prevent the hub moving downward on the shaft.

Felber discloses a hub as described above, but Felber does not disclose the hub being made of plastic.

Plamper discloses a hub made from plastic (col. 1 lines 49-56).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the hub of Felber to be made from plastic as taught by Plamper in order to improve the strength of the hub.

6. Claims 3, 4, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Felber (CH 346442) in view of Steffens, Jr. (US 6,457,743).

Felber discloses a hub as described above, but Felber does not disclose the inner surface having a star shaped profile formed by a plurality of v-shaped grooves.

Steffens, Jr. discloses a hub having an inner surface having a star shaped profile formed by a plurality of v-shaped grooves.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the hub of Felber in view of the teachings of Steffens, Jr., to include the star shaped profile in order to prevent relative rotation between the hub and the shaft.

Response to Arguments

Some further comments regarding the applicant's remarks are deemed appropriate.

The applicant argues that the Felber reference fails to meet the limitations of the claims because the upper surface and the lower surface are stepped. Felber shows both surfaces as being generally planar, which does not preclude them from also having a stepped surface; the surfaces for the most part are planar.

The applicant argues that the upper surface does not have fastening means. The upper surface (7) has holes for the screws and therefore meets the limitations of the claims.

The applicant argues that the limitations of claim 11 were not addressed. See paragraph 2 of the office action dated February 24, 2005.

It is also argued that the Steffens, Jr. references fails to disclose a hub having a star-shaped profile see Fig 6.

The applicant argues that the Plamper reference fails to meet the limitations of the claims because to substitute plastic for metal would decrease the strength. The

Art Unit: 3682

Felber reference never suggests making the hub out of any particular material. The Plamper reference teaches the use of plastic to make a hub.


The applicant's remarks have been accorded due consideration, however they are not deemed fully persuasive.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vicky A. Johnson whose telephone number is (571) 272-7106. The examiner can normally be reached on Monday-Friday (7:00a-3:30p).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Bucci can be reached on (571) 272-7099. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Vicky A. Johnson 8/5/05
Examiner
Art Unit 3682